Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. The following listing provides the amended claims with the amendments marked with deleted material ~~struck through~~ and new material underlined to show the changes made.

Listing of Claims:

1. (Previously Amended) A method of nickel salicidation comprising:

forming a processed substrate including partially fabricated integrated circuit components and a silicon substrate;

incorporating nitrogen into said processed substrate;

annealing said processed substrate after incorporating nitrogen into said processed substrate for removing defects caused by nitrogen implantation;

depositing nickel onto said processed substrate; and

annealing said processed substrate so as to form nickel mono-silicide.

2. (Original) The method as claimed in claim 1, wherein said partially fabricated integrated circuit components include gate and source/drain structures.

3. (Previously Amended) The method as claimed in claim 2, wherein said forming a processed substrate comprises:

forming dielectric regions in said silicon substrate that electrically isolate neighboring integrated circuit devices;

doping a portion of said silicon substrate with an n-type and p-type doping to form said source/drain structures;

depositing a gate dielectric material and a polycrystalline silicon gate material onto said silicon substrate and selectively etching; and

depositing a dielectric material onto said silicon substrate and selectively etching to form dielectric spacers.

4. (Original) The method as claimed in claim 1, wherein said incorporating nitrogen into said processed substrate comprises doping said processed substrate with nitrogen.

5. (Original) The method as claimed in claim 1, wherein said incorporating nitrogen into said processed substrate comprises implanting nitrogen ions into said processed substrate.

6. (Original) The method as claimed in claim 5, wherein said implanting nitrogen ions comprises a blanket N_2+ ion implantation of said processed substrate.

7. (Original) The method as claimed in claim 6, wherein said blanket N_2+ ion implantation comprises implanting ions with a dosage between $2*10^{14}/cm^2$ and $2*10^{16}/cm^2$, and an ion energy between 15 keV and 50 keV.

Claim 8 (Canceled)

9. (Original) The method as claimed in claim 8, wherein said annealing said processed substrate prior to said depositing nickel comprises rapid thermal processing at a temperature between 800 °C and 1000 °C, for a duration of between 30 seconds and 60 seconds.

10. (Original) The method as claimed in claim 1, wherein said depositing nickel comprises applying a solution including hydrogen fluoride to said processed substrate and blanket sputter depositing between 100 Å and 300 Å of said nickel onto said processed substrate.

11. (Original) The method as claimed in claim 1, wherein said annealing said processed substrate so as to form nickel mono-silicide comprises one-step rapid thermal processing at a temperature between 400 °C and 800 °C.

12. (Original) The method as claimed in claim 1, further comprising:

removing unreacted nickel after said annealing said processed substrate so as to form nickel mono-silicide; and

performing a series of integrated circuit fabrication procedures after said removing unreacted nickel, including:

depositing a dielectric material onto said processed substrate and selectively etching;

planarizing said processed substrate; and

depositing metal onto said processed substrate and selectively etching to form metal lines.

13. (Original) The method as claimed in claim 12, wherein said removing unreacted nickel comprises etching said unreacted nickel using a solution containing at least one of sulfuric acid, hydrogen peroxide, nitric acid, hydrochloric acid, water, a solution of sulfuric acid, hydrogen peroxide and water, a solution of nitric acid and hydrochloric acid, and a solution of hydrochloric acid, hydrogen peroxide and water.

14. (Original) The method as claimed in claim 12, wherein said annealing said processed substrate so as to form nickel mono-silicide and said removing unreacted nickel comprise a process to form a gate electrode including nickel mono-silicide and polycrystalline silicon that is electrically isolated from a source/drain contact including nickel mono-silicide and single crystal silicon.

15. (Original) The method as claimed in claim 1, wherein at least one of said incorporating nitrogen and said depositing nickel is applied to a region smaller than the entire top surface of the processed substrate.

Claims 16-24 (previously canceled)